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Commissioner for Patents

P Box 1450

xandria, VA 22313-1450

on JANUARY 5, 2005

TOWNSEND and TOWNSEND and CREW LLP

By Mark T. Daris

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Manfred Baetscher et al.

Application No.: 10/507,384

Filed: September 9, 2004

For: STEM CELL SELECTION AND

DIFFERENTIATION

Examiner: Not Yet Assigned

Art Unit: Not Yet Assigned

INFORMATION DISCLOSURE

STATEMENT UNDER 37 CFR §1.97 and

§1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

Manfred Baetscher et al. Application No.: 10/5

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that <u>no fee is required</u> for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

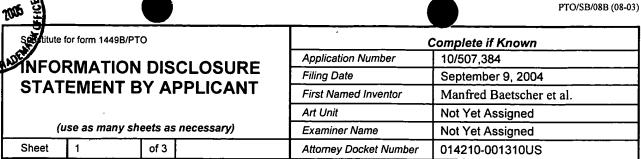
Respectfully submitted,

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BAH:mtd 60382618 v1



U.S. PATENT DOCUMENTS+							
		Document Number					
Examiner Initials*	Cite No. <sup>1</sup>	Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
	1	US-2002/0076816 A1	06-20-2002	Dai et al.			

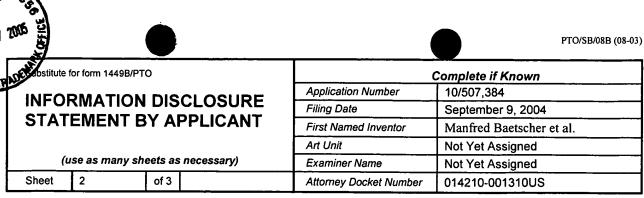
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Examiner Initials*	Cite No. <sup>1</sup>	For	eign Patent Doc  Number4	ument  Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	2	wo	96/02236	A1	07-25-1996			

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No. <sup>1</sup>					
	3	BAIN, Gerard et al.; "Embryonic Stem Cells Express Neuronal Properties in Vitro"; 1995, <u>Developmental Biology</u> , Vol. 168, pp. 342-357.				
	4	BRADLEY, Allan et al.; "Embryo-Derived Stem Cells: A Tool for Elucidating the Developmental Genetics of the Mouse"; 1986, Current Topics in Developmental Biology, Vol. 20, Chapter 25, pp. 357-371.				
	5	BUNTING, Kevin D.; "ABC Transporters as Phenotypic Markers and Functional Regulators of Stem Cells"; 2002, Stem Cells, Vol. 20, pp. 11-20.				
	6	CARMELIET, Peter et al.; "Role of HIF-1α in hypoxia-mediated apoptosis, cell proliferation and tumour angiogenesis"; 1998, <u>Nature</u> , Vol. 394, pp. 485-490.				
	7	CHRISTENSEN, Julie L. et al.; "Fik-2 is a marker in hematopoietic stem cell differentiation: A simple method to isolate long-term stem cells"; 2001, Proceedings of the National Academy of Sciences Vol. 98, No. 25, pp. 14541-14546.				
	8	COMERFORD, Katrina M. et al.; "Hypoxia-inducible Factor-1-dependent Regulation of the Multidrug Resistance (MDR1) Gene <sup>1</sup> "; 2002, Cancer Research, Vol. 62, pp. 3387-3394.				
	9	COSSARIZZA, Andrea et al; "A New Method for the Cytofluorimetric Analysis of Mitochondrial Membrane Potential Using the J-Aggregate Forming Lipophilic Cation 5,5',6,6'-Tetrachloro-1,1',3,3'-Tetraethylbenzimidazolcarbocyanine lodide (JC-1)"; 1993, <u>Biochemical and Biophysical Research Communications</u> , Vol. 197, No. 1, pp. 40-45.				
	10	COSSARIZZA, Andrea et al.; "Functional Heterogeneity of an Isolated Mitochondrial Population Revealed by Cytofluorometric Analysis at the Single Organelle Level"; 1996, <a href="Experimental Cell Research">Experimental Cell Research</a> , Vol. 222, pp. 84-94.	-			
	11	DANI, C. et al.; "Differentiation of embryonic stem cells into adipocytes in vitro"; 1997, <u>Journal of Cell Science</u> , Vol. 110, pp. 1279-1285.				
	12	ERNST, Matthias et al.; "Functional and biochemical association of Hck with the LIF/IL-6 receptor signal transducing subunit gp130 in embryonic stem cells"; 1994, The EMBO Journal, Vol. 13, No. 7, pp. 1574-1584.				
	13	GOODELL, Margaret A. et al.; "Isolation and Functional Properties of Murine Hematopoietic Stem Cells that are Replicating In Vivo"; 1996, <u>J. Exp. Med.</u> , Vol. 183, pp. 1797-1806.				

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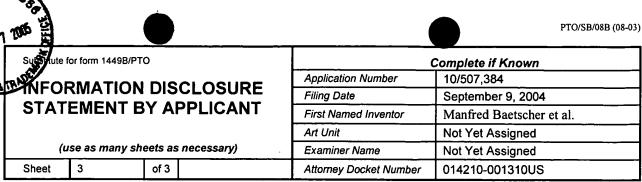


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	14	GOTTESMAN, Michael M. et al.; "Overview: ABC Transporters and Human Disease"; 2001, <u>Journal of Bioenergetics</u> and <u>Biomembranes</u> , Vol. 33, No. 6, pp. 453-458.	
	15	HOGAN, Brigid et al; "Manipulating the Mouse Embryo: A Laboratory Manual"; 1994, Cold Spring Harbor Laboratory Press, pp. 1-497.	
	16	LABROILLE< Gilles et al.; "Flow Cytometric Evaluation of Fas Expression in Relation to Response and Resistance to Anthracyclines in Leukemic Cells"; 2000, Cytometry, Vol. 39, pp. 195-202.	
	17	NARAZAKI, Masashi et al.; "Activation of JAK2 kinase mediated by the interleukin 6 signal transducer gp130"; 1994, Proceedings of the National Academy of Sciences, Vol. 91, pp. 2285-2289.	
	18	NICHOLS, Jennifer et al.; "Derivation of Germline Competent Embryonic Stem Cells with a Combination of Interleukin-6 and Soluble Interleukin-6 Receptor"; 1994, Experimental Cell Research, Vol. 215, pp. 237-239.	
	19	NICHOLS, Jennifer et al.; "Formation of Pluripotent Stem Cells in the Mammalian Embryo Depends on the POU Transcription Factor Oct4"; 1998, <u>Cell</u> , Vol. 95, pp. 379-391.	
	20	ROBERTSON, John A.; "Human embryonic stem cell research: ethical and legal issues"; 2001, Nature, Vol. 2, pp. 74-78.	
	21	SCHARENBERG, Christian W. et al.; "The <i>ABCG2</i> transporter is an efficient Hoechst 33342 efflux pump and is preferentially expressed by immature human hematopoietic progenitors"; 2002, <u>Blood</u> , Vol. 99, No. 2, pp. 507-512.	
	22	SEAGROVES, Tiffany N. et al.; "Transcription Factor HIF-1 Is a Necessary Mediator of the Pasteur Effect in Mammalian Cells"; 2001, Molecular and Cellular Biology, Vol. 21, No. 10, pp. 3436-3444.	
	23	SMITH, Austin G. et al.; "Inhibition of pluripotential embryonic stem cell differentiation by purified polypeptides"; 1988, Nature, Vol. 336, pp. 688-690.	
	24	SMITH, Austin G.; "Embryo-Derived Stem Cells: Of Mice and Men"; 2001, Annu. Rev. Cell. Dev. Biol., Vol. 17, pp. 435-462.	
	25	THOMSON, James A. et al.; "Embryonic Stem Cell Lines Derived from Human Blastocysts"; 1998, Science, Vol. 282, pp. 1145-1147.	
	26	TSAI, Robert Y.L. et al.; "Plasticity, Niches, and the USe of Stem Cells"; 2002, <u>Developmental Cell</u> , Vol. 2, pp. 707-712.	
	27	UCHIDA, Naoyuki et al.; "Liver and marrow of adult mdr-1a/1b <sup>-1</sup> mice show normal generation, function, and multitissue trafficking of primitive hematopoietic cells"; 2002, <u>Experimental Hematology</u> , Vol. 30, pp. 862-869.	
	28	WEISSMAN, Irving L. et al.; "Stem and Progenitor Cells: Origins, Phenotypes, Lineage Commitments, and Transdifferentiations"; 2001, <u>Annu. Rev. Cell Dev. Biol.</u> , Vol. 17, pp. 387-403.	
	29	WILDING, Martin et al.; "Mitochondrial aggregation patterns and activity in human oocytes and preimplantation embryos"; 2001, Human Reproduction, Vol. 16, No. 5, pp. 909-917.	

Examiner	Date	
Signature	Considered	

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	30	WILLIAMS, R. Lindsay et al.; "Myeloid leukaemia inhibitory factor maintains the developmental potential of embryonic stem cells"; 1988, Nature, Vol. 336, pp. 684-687.		
	31,	YOSHIDA, Kanji et al.; "Maintenance of the pluripotential phenotype of embryonic stem cells through direct activation of gp130 signalling pathways"; 1994, Mechanisms of Development, Vol. 45, pp. 163-171.		
	32	ZHOU, Sheng et al.; "The ABC transporter Bcrp1/ABCG2 is expressed in a wide variety of stem cells and is a molecular determinant of the side-population phenotype"; 2001, Nature Medicine, Vol. 7, No. 9, pp. 1028-1034.		
	33	ZHOU, Sheng et al.; "Bcrp1 gene expression is required for normal numbers of side population stem cells in mice, and confers relative protection to mitoxantrone in hematopoietic cells in vivo"; 2002, Proceedings of the National Academy of Sciences Vol. 99, No. 19, pp. 12339-12334.		

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